This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims</u>:

Claim 1 (Canceled).

Claim 2 (Currently Amended): An image output control system in accordance with ~~claim 1~~ <u>claim 5</u>, wherein said priority order specification module selects one out of multiple options for the priority order, which are provided in advance, with respect to the pixel group.

Claim 3 (Currently Amended): An image output control system in accordance with ~~claim 1~~ <u>claim 5</u>, wherein said number data output module has a dot number combination mapping table that maps each combination of numbers of the multiple different types of dots to a preset code,

said number data output module refers to the dot number combination mapping table to convert a combination of the numbers of the respective types of dots determined with respect to the pixel group to a corresponding preset code and outputs the preset code, in place of the dot number data of the pixel group, to said image output device, and

said number data receiving module comprises:

a code mapping table that maps each preset code to a combination of the numbers of the multiple different types of dots; and

a number data conversion module that receives the output preset code of the pixel group, and refers to the code mapping table to reconvert the received preset code to dot number data of the pixel group with respect to each type of dot.

Claim 4 (Currently Amended): An image output control system in accordance with ~~claim 1~~ <u>claim 5</u>, wherein said pixel position determination module sequentially determines the positions of the dot-on pixels with respect to each type of dot in a descending order of the density per unit area of the multiple different types of dots.

Claim 5 (Currently Amended): An image output control system ~~in accordance with claim 1,~~ comprising an image processing device that makes image data subjected to a preset series of image processing, and an image output device that creates multiple different types of dots having different densities per unit area according to a result of the preset series of image processing, so as to output an image,

said image processing device comprising:

a dot number determination module that determines a number of dots to be created in each pixel group, which is set to have a predetermined number of multiple pixels having a two-dimensional size comprising multiple pixels arranged in primary and secondary scan directions included in the image, with respect to each of the multiple different types of dots according to the image data; and

a number data output module that outputs the determined number of dots to be created in the pixel group with respect to each type of dot, as dot number data of the pixel group, to said image output device,

said image output device comprising:

a number data receiving module that receives the dot number data of the pixel group with respect to each type of dot;

a priority order specification module that specifies a priority order of individual pixels in the pixel group for dot creation;

a pixel position determination module that determines positions of dot-on pixels in the pixel group with respect to each type of dot, based on the dot number data of the pixel group with respect to each type of dot and the specified priority order; and

a dot formation module that creates the multiple different types of dots at the determined positions of the dot-on pixels,

wherein said dot number determination module comprises:

a first dot density data generation module that generates first dot density data representing a density of a first dot to be created in the pixel group, based on the image data, where the first dot has a highest density per unit area among the multiple different types of ~~dots,~~ dots;

a second dot density data generation module that generates second dot density data representing a density of either of the first dot and a second dot to be created in the pixel group, based on the image data, where the second dot has a second highest density per unit area among the multiple different types of dots;

a threshold value group storage module that stores a threshold value group consisting of multiple threshold values, which respectively correspond to the predetermined number of multiple pixels included in the pixel group;

a first dot number determination module that compares the first dot density data with the threshold values included in the threshold value group and sets a number of threshold values that are smaller than the first dot density data to a number of the first dots to be created in the pixel group; and

a second dot number determination module that compares the second dot density data with the threshold values included in the threshold value group and sets a number of the second dots to be created in the pixel group, based on the preset number of the first dots and a number of threshold values that are smaller than the second dot density data,

said second dot number determination module comparing the second dot density data with only threshold values that are greater than the first dot density data and counting the number of the threshold values that are smaller than the second dot density data, so as to set the number of the second dots to be created in the pixel group.

Claim 6 (Original): An image output control system in accordance with claim 5, wherein said threshold value group storage module stores the multiple threshold values of the threshold value group in an order of magnitude of the respective threshold value in the threshold value group, and

said second dot number determination module selects the threshold values that are greater than the first dot density data, on the basis of the order of magnitude.

Claim 7 (Original): An image output control system in accordance with claim 6, wherein said first dot number determination module starts comparison of the first dot density data from a threshold value having an ordinal number selected on the basis of a most-recent setting of the number of the first dots, and counts the number of the threshold values that are smaller than the first dot density data.

Claim 8 (Original): An image output control system in accordance with claim 7, wherein said second dot number determination module, in the case of absence of any threshold value that is smaller than the first dot density data, starts comparison of the second dot density data from a threshold value having an ordinal number selected on the basis of a most-recent setting of the number of the second dots.

Claims 9-16 (Canceled).

Claim 17 (Currently Amended): An image output control method ~~in accordance with claim 16,~~ that makes image data subjected to a preset series of image processing and creates multiple different types of dots having different densities per unit area according to a result of the preset series of image processing, so as to output an image,

said image output control method comprising:

determining a number of dots to be created in each pixel group, which is set to have a predetermined number of multiple pixels having a two-dimensional size comprising multiple pixels arranged in primary and secondary scan directions included in the image, with respect to each of the multiple different types of dots according to the image data;

specifying a priority order of individual pixels in the pixel group for dot creation;

determining positions of dot-on pixels in the pixel group with respect to each type of dot, based on the determined number of dots to be created in the pixel group with respect to the type of dot and the specified priority order; and

creating the multiple different types of dots at the determined positions of the dot-on pixels on an output medium,

wherein said step for determining a number of dots to be created in each pixel group comprises:

(1-a) generating first dot density data representing a density of a first dot to be created in the pixel group, based on the image data, where the first dot has a highest density per unit area among the multiple different types of ~~dots,~~ dots;

(1-b) generating second dot density data representing a density of either of the first dot and a second dot to be created in the pixel group, based on the image data, where the second dot has a second highest density per unit area among the multiple different types of dots;

(1-c) storing a threshold value group consisting of multiple threshold values, which respectively correspond to the predetermined number of multiple pixels included in the pixel group;

(1-d) comparing the first dot density data with the threshold values included in the threshold value group and setting a number of threshold values that are smaller than the first dot density data to a number of the first dots to be created in the pixel group; and

(1-e) comparing the second dot density data with the threshold values included in the threshold value group and setting a number of the second dots to be created in the pixel group, based on a number of threshold values that are smaller than the second dot density data,

said step (1-e) comparing the second dot density data with only threshold values that are greater than the first dot density data and counting the number of the threshold values that are smaller than the second dot density data, so as to set the number of the second dots to be created in the pixel group, and

wherein at least one operation of the image output control method is executed by a processor.

Claims 18 and 19 (Canceled).

Claim 20 (Currently Amended): A computer program product comprising a computer-readable storage medium having an image output control program stored thereon, the image output control program being executed by a computer to make image data subjected to a preset series of image processing and create multiple different types of dots having different densities per unit area according to a result of the preset series of image processing, thus outputting an image, the image output control program comprising:

a first program code for determining a number of dots to be created in each pixel group, which is set to have a predetermined number of multiple pixels having a two-dimensional size comprising multiple pixels arranged in primary and secondary scan directions included in the image, with respect to each of the multiple different types of dots according to the image data;

a second program code for specifying a priority order of individual pixels in the pixel group for dot creation;

a third program code for determining positions of dot-on pixels in the pixel group with respect to each type of dot, based on the determined number of dots to be created in the pixel group with respect to the type of dot and the specified priority order; and

a fourth program code for creating the multiple different types of dots at the determined positions of the dot-on pixels on an output medium,

wherein said first program code for determining a number of dots to be created in each pixel group comprises:

program code for generating first dot density data representing a density of a first dot to be created in the pixel group, based on the image data, where the first dot has a highest density per unit area among the multiple different types of dots;

program code for generating second dot density data representing a density of either of the first dot and a second dot to be created in the pixel group, based on the image data, where the second dot has a second highest density per unit area among the multiple different types of dots;

program code for storing a threshold value group consisting of multiple threshold values, which respectively correspond to the predetermined number of multiple pixels included in the pixel group;

program code for comparing the first dot density data with the threshold values included in the threshold value group and setting a number of threshold values that are smaller than the first dot density data to a number of the first dots to be created in the pixel group; and

program code for comparing the second dot density data with the threshold values included in the threshold value group and setting a number of the second dots to be created in the pixel group, based on a number of threshold values that are smaller than the second dot density data,

said program code for comparing the second dot density data with the threshold values included in the threshold value group comparing the second dot density data with only threshold values that are greater than the first dot density data and counting the number of the threshold values that are smaller than the second dot density data, so as to set the number of the second dots to be created in the pixel group.

Claims 21 and 22 (Canceled).

Claim 23 (Currently Amended): An image output control system comprising an image processing device that makes image data subjected to a preset series of image processing, and an image output device that creates multiple different types of dots having different densities per unit area according to a result of the preset series of image processing, so as to output an image,

said image processing device comprising:

a number calculator that calculates a number of dots to be created in each pixel group, which is set to have a predetermined number of multiple pixels having a two-dimensional size comprising multiple pixels arranged in primary and secondary scan directions included in the image, with respect to each of the multiple different types of dots according to the image data; and

a data transmitter that outputs the calculated number of dots to be created in the pixel group with respect to each type of dot, as dot number data of the pixel group, to said image output device,

said image output device comprising:

a data receiver that receives the dot number data of the pixel group with respect to each type of dot;

a priority order operator that specifies a priority order of individual pixels in the pixel group for dot creation;

a position setter that sets positions of dot-on pixels in the pixel group with respect to each type of dot, based on the dot number data of the pixel group with respect to each type of dot and the specified priority order; and

a dot creator that creates the multiple different types of dots at the set positions of the dot-on pixels,

wherein said number calculator comprises:

a first dot density data generator that generates first dot density data representing a density of a first dot to be created in the pixel group, based on the image data, where the first dot has a highest density per unit area among the multiple different types of dots;

a second dot density data generator that generates second dot density data representing a density of either of the first dot and a second dot to be created in the pixel group, based on the image data, where the second dot has a second highest density per unit area among the multiple different types of dots;

a threshold value group storage that stores a threshold value group consisting of multiple threshold values, which respectively correspond to the predetermined number of multiple pixels included in the pixel group;

a first dot number determiner that compares the first dot density data with the threshold values included in the threshold value group and sets a number of threshold values that are smaller than the first dot density data to a number of the first dots to be created in the pixel group; and

a second dot number determiner that compares the second dot density data with the threshold values included in the threshold value group and sets a number of the second dots to be created in the pixel group, based on the preset number of the first dots and a number of threshold values that are smaller than the second dot density data,

said second dot number determiner comparing the second dot density data with only threshold values that are greater than the first dot density data and counting the number of the threshold values that are smaller than the second dot density data, so as to set the number of the second dots to be created in the pixel group.

Claims 24 and 25 (Canceled).

Claim 26 (Previously Presented): An image output control system in accordance with claim 28, wherein the pixel group includes 4 x 2 pixels.

Claim 27 (Currently Amended): An image output control system in accordance with ~~claim 1~~ claim 5, wherein said dot number determination module uses one correspondence relation defined for each pixel group among previously prepared multiple correspondence relations to determine the number of dots, and

said correspondence relation is obtained from the arrangement of multiple threshold values, which corresponds to the number of pixels included in the pixel group and is taken out from a global dither matrix.

Claim 28 (Currently Amended): The image output control system in accordance with ~~claim 1~~ claim 5, wherein the pixel group has M x N pixels, with M and N being integers greater than one.